

 <b>CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY</b> <b>AIR RESOURCES BOARD</b>	ISUZU MOTORS LIMITED	<b>EXECUTIVE ORDER U-R-006-0089</b> New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2002	2SZXL06.5FXA	6.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler			Loader, Compressor, Excavator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

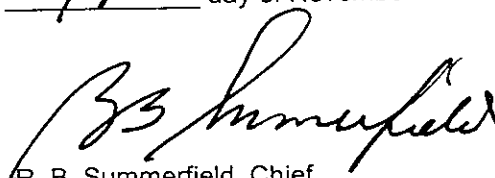
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ KW < 130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	5.8	--	--	--	13	1	33

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 19th day of November 2001.

  
 R. B. Summerfield, Chief  
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Isuzu Motors Limited  
Engine category: Nonroad CI  
EPA Engine Family: 2SZXL06.5FXA  
Mfr Family Name: NA  
Process Code: Running Change, Mar. 27, 2002

ATTACHMENT

EO U-R-006-0089  
Page 2

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
6BG1XABFA-01	AA-6BG1T	149.9@2200	78.3@2200	57.4@2200	414.6@1500	83.4@1500	41.7@1500	EM,TC,CAC,DFI
6BG1XABFA-02	AA-6BG1T	138.5@1800	82.7@1800	49.6@1800	414.6@1500	83.4@1500	41.7@1500	EM,TC,CAC,DFI
6BG1XABFA-03	AA-6BG1T	134.4@2200	69.6@2200	51.1@2200	363.8@1500	73.2@1500	36.6@1500	EM,TC,CAC,DFI
6BG1XABFA-04	AA-6BG1T	121.2@1800	72.9@1800	43.8@1800	363.8@1500	73.2@1500	36.6@1500	EM,TC,CAC,DFI
6BG1XABFA-05	AA-6BG1T	149.3@2100	79.1@2100	55.4@2100	414.3@1600	83.3@1600	44.4@1600	EM,TC,CAC,DFI
6BG1XABFA-06	AA-6BG1T	147.9@2000	80.5@2000	53.7@2000	414.3@1600	83.3@1600	44.4@1600	EM,TC,CAC,DFI